radius®
by inovonics

user

MANUAL

Table of Contents

Preface 1

Notice 1
Trademarks 1
US Patent Numbers 1
Technical Services Contact Information 2
Document Conventions 2
Warranty 2

Chapter 1 Radius Overview 6

1.1 About Radius 6
1.2 Radius Server Components 7
1.2.1 Radius Server 7
1.2.2 Network Coordinator 7
1.2.3 High Power Repeater 7
1.2.4 Wireless End Devices 7
1.2.4.1 Pendant Transmitters 7
1.2.4.2 Universal Transmitters 7
1.2.4.3 Specialized Transmitters 8
1.2.5 Dialogic Combined Media Board 8
1.2.6 Two-Way Radio Interface 8
1.2.7 Paging Base Station and Pagers 8
1.2.8 Lantronix Serial to IP Interface 8
1.3 Defining the Radius System 8
1.3.1 Monitored Devices 9
1.3.2 Device Categories 9
1.3.3 Alert Devices 9
1.3.4 Alert Groups 9
1.3.5 Modes and Actions 9

Chapter 2 Radius Alarm Status Screen 10

2.1 Overview 10
2.1.1 Alarm Detail 10
2.1.1.1 Log Time 10
2.1.1.2 Alert Device 10
2.1.1.3 Contact Info 11
2.1.1.4 Status 11
2.1.1.5 Confirmed 11

Chapter 3 Using Quick Messages 12

3.1 Overview 12
3.2 Sending Quick Messages 12
3.3 Managing Quick Picks 12
3.4 Viewing the Quick Message Log 13

Chapter 4 Using Reminders 14

4.1 Overview 14
4.2 Sending Reminders 14

Chapter 5 Reports 15

5.1 Overview 15
5.1.1 Event History 16
5.1.2 Average Alarm Response Time 16
5.1.3 Track Mobile Devices 17
5.1.4 Mobile Device Tracking Report 18
5.1.5 Recent Zone Activity 18
5.1.6 Zone Activity History 19
5.1.7 Current Temp/Humidity 19
5.1.8 Temp/Humidity History Report 20
5.1.9 Low Battery Report 20
5.1.10 Scheduled Reports 21

Preface

Notice

© Inovonics, 2013

Inovonics intends this manual for use by Inovonics customers only. All comments concerning the contents of this manual should be directed to the Inovonics marketing department. No part of this work covered by copyright may be reproduced in any form either graphically, electronically, or mechanically; including photocopying, recording, taping, or storing in an information retrieval system without prior written permission from Inovonics.

Document Part Number

06324C

Trademarks

Inovonics, EchoStream and Radius are registered trademarks of Inovonics. All other brand names and product names used in this manual are trademarks, registered trademarks, or trade names of their respective holders.

US Patent Numbers

- 7,154,866
- 7,554,932
- 7,746,804

Technical Services Contact Information

For Inovonics technical services:

- E-mail: support@inovonics.com
- Phone: (800) 782-2709; (303) 939-9336

Document Conventions

The following notices are used throughout this document:

Note: Emphasizes points, provides supplementary information, or indicates minor problems in an expected outcome.

Caution: Indicates possible damage to equipment or loss of data, as well as potential problems in an expected outcome.

Warning: Indicates the possibility of minor injury to oneself or others.

Danger: Indicates the possibility of serious or fatal injury to oneself or others.

Warranty

Inovonics Wireless Corporation ("Inovonics") warrants the Radius server hardware to conform to its own specifications and to be free of defects in materials and workmanship under normal use for a period of twelve (12) months from the date of manufacture. Within the warranty period, Inovonics will repair or replace, at its option, all or any part of the warranted product. Inovonics will not be responsible for dismantling and/or reinstallation charges. To exercise the warranty, the User ("User", "Installer" or "Consumer") must work directly through their authorized distributor who will be given a Return Material Authorization ("RMA") Number by Inovonics. Details of shipment will be arranged directly through the authorized distributor.

This warranty is void in cases of improper installation, misuse, failure to follow installation and operating instructions, unauthorized alteration, accident or tampering, and repair by anyone other than Inovonics.

This warranty is exclusive and expressly in lieu of all other warranties, obligations or liabilities, whether written, oral, express, or implied. There is no warranty by Inovonics that Inovonics product will be merchantable or fit for any particular purpose, nor is there any other warranty, expressed or implied, except as such is expressly set forth herein. In no event shall Inovonics be liable for an incidental, consequential, indirect, special, or exemplary damages, including but not limited to loss of profit, revenue or contract, loss of use, cost of down time, or interruption of business, nor any claim made by distributor's customers or any other person or entity.

This warranty will not be modified or extended. Inovonics does not authorize any person to act on its behalf to modify or extend this warranty. This warranty will apply only to the Radius server hardware. Inovonics will not be liable for any direct, incidental or consequential damage or loss whatsoever, caused by the malfunction of product due to products, accessories, or attachments of other manufacturers, including batteries, used in conjunction with Inovonics products.

Chapter 1

Radius Overview

1.1 About Radius

Radius is a revolutionary alert server and awareness engine. Designed to link people to events in life-safety situations, Radius combines the latest mass notification capabilities with advanced positioning technology to provide detailed location information.

Radius provides the central nervous system for your Physical Security Information Management system. The system integrates data from traditional security devices, even IP-enabling legacy security and fire panels to do so, and then coordinates an appropriate response. The location functionality provided by Inovonics® Positioning Technology™ then ensures those alarms can be located, so that the response can be effective.

Radius allows users to monitor a variety of end-devices; interface to fire, access control, and environmental systems; and provide notification to mobile devices such as cell phones, pagers, and two-way radios.

Figure 1-1 Radius Overview

1.2 Defining the Radius System

Every Radius system will differ depending on the specific application, but they all have in common that they must turn alarms from end devices into alerts delivered to the user.

Generally, Radius system components are defined as follows:

1.2.1 Monitored Devices

Every device that you are watching for an alarm must be defined as a monitored device. This includes universal transmitters, pendants, door alarms, smoke detectors, and motion detectors.

1.2.2 Device Categories

Every monitored device must belong to a category. If you are using motion detectors, you will need a motion detector category; if you are using pendants, you need a pendant category. It is in the device category section that you determine what you want Radius to do when an alarm occurs at a monitored device.

1.2.3 Alert Devices

Every device that will receive an alert from Radius must be defined here, including pagers, phones, and email addresses.

- Any device to which you want to send a quick message or reminder must be set up in alert devices.
- Any device that you want included in an alarm escalation under modes and actions must be set up in alert devices.
- If you want to put together an alert group, all members of the group must be set up in alert devices.

1.2.4 Alert Groups

This feature allows you to create groups of alert devices that will always be contacted together. Alert groups are especially useful in situations where you wish to contact a large group of people; by creating an alert group, you only have to choose a single entry to send a quick message or reminder.

- If you want to put together an alert group, all members of the group must be set up in alert devices.

1.2.5 Modes and Actions

Alarms can be escalated using the modes and actions option. This will allow you to set up time schedules (modes) and specific alarm responses (actions) for each device category.

1.3 Radius Server Components

1.3.1 Radius Server

The Radius server is a Windows XP embedded server typically connected to the local area network (LAN) to allow existing users to view and administer the Radius system on their workstations.

The Radius server includes four serial ports, one Ethernet port, six USB ports and four analog telephone jacks.

- The Radius server requires 110VAC power with an uninterrupted power supply and an ethernet connection.

1.3.2 Network Coordinator

The network coordinator manages signals between the wireless end devices in the Radius system and the Radius server.

- The network coordinator requires 110VAC power.
- Generally speaking, the network coordinator should be mounted in an elevated position, away from metal.
- The network coordinator should be mounted no more than 25 feet away from the Radius server.

1.3.3 High Power Repeater

The high power repeater intelligently amplifies transmissions from any Inovonics EchoStream end device, while ignoring background noise. Virtually any number of repeaters can be added to a system, scaling the system size as needed.

- The high power repeater requires 110VAC power.

Radius can also use the high power repeater network to provide the approximate location of wireless end devices sending alert signals.

1.3.4 Wireless End Devices

The Radius system can incorporate any Inovonics wireless end device, including:

1.3.4.1 Pendant Transmitters

Inovonics wireless pendant transmitters offer virtually limitless opportunities for panic/duress, life safety, and many custom applications.

- http://www.inovonics.com/pendant-transmitters.aspx

1.3.4.2 Universal Transmitters

Inovonics universal transmitters are designed for use with almost any standard contact or sensor. They are available in a number of configurations for almost any application.

- http://www.inovonics.com/universal-transmitters.aspx

1.3.4.3 Specialized Transmitters

Inovonics specialized transmitters are used for unique security, pulse counting, temperature, and custom applications.

- http://www.inovonics.com/specialized-transmitter.aspx

1.3.5 Dialogic® Combined Media Board

A dialogic combined media board allows the Radius system to make and receive phone calls. A voice-enabled Radius server includes one four-port Dialogic board installed.

- The Dialogic combined media board can only be used with a standard analog phone line. The combined media board will not work with a digital phone line.

1.3.6 Two-Way Radio Interface

A two-way radio can be connected to the Radius server using a radio interface box with a phone connection on one end and a 2.5mm jack to interface to a base radio. The radio interface box will use one of the RJ11 jacks found on the dialogic board.

1.3.7 Paging Base Station and Pagers

The Radius server can connect to a paging base station via one of the serial ports to deliver POCSAG compliant messages to pagers.

- The paging base station requires 110VAC power.
- Generally speaking, the paging base station should be mounted in an elevated position, away from metal.
- The paging base station should be mounted no more than 25 feet away from the Radius server.

Chapter 2

Radius Alarm Status Screen

2.1 Overview

When you log into Radius, the first thing you will see is the home screen. The home screen shows all devices that are currently in alarm, or have been been alarmed within the past ten and twenty minutes. It also shows supervised devices that are not checking into the Radius system.

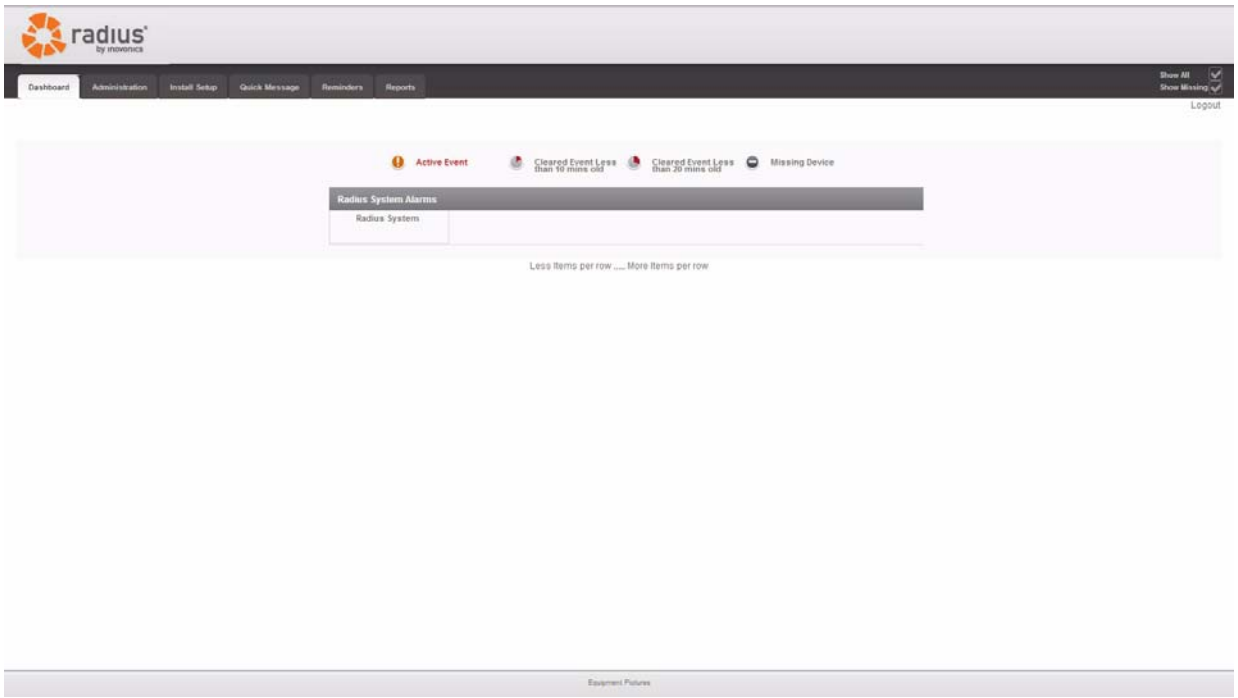

Figure 2-1 The home screen

The icons next to the devices indicate their condition.

- Active event indicates a device that is currently in alarm
- Cleared event less than 10 mins old indicates a device that was in alarm but has been cleared within the past 10 minutes
- Cleared event less than 20 mins old indicates a device that was in alarm but has been cleared within the past 20 minutes
- Missing device indicates a device that is not sending a check-in signal to the Radius system

2.1.1 Alarm Detail

Clicking on any alarm will display additional detail:

2.1.1.1 Log Time

The time the alarm was logged by each device that received it.

2.1.1.2 Alert Device

Details for each person that received the alarm via their alert device.

2.1.1.3 Contact Info

Contact information for the person who received the alarm.

2.1.1.4 Status

The status of the alarm.

2.1.1.5 Confirmed By

How the alarm was confirmed.

To return to the home screen, click “Confirm This Event.”

Chapter 3

Using Quick Messages

3.1 Overview

Quick messages can be used to get an immediate message out to any single alert device or group of alert devices. The Radius system keeps track of quick messages in the quick message log.

Quick messages are created and managed in the quick message screen.

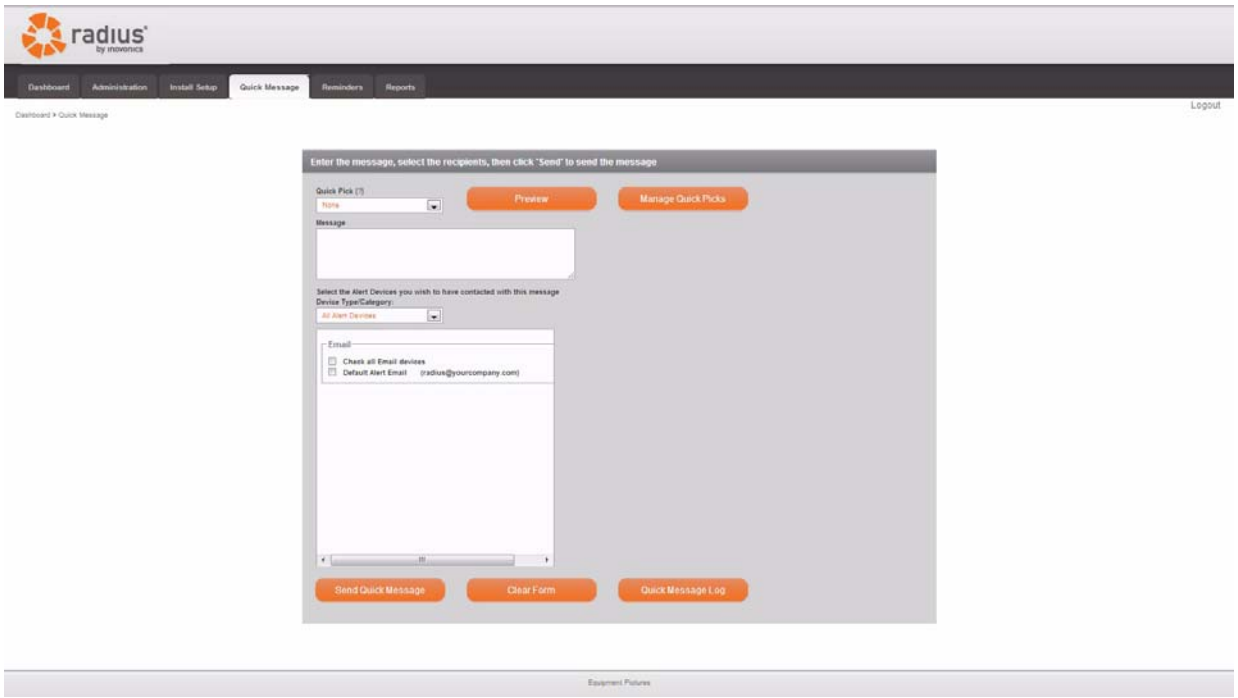

Figure 3-1 Quick message screen

3.2 Sending Quick Messages

1. From the home screen, click “Quick Message.”
2. Choose a saved message from the “Quick Pick” dropdown menu, or enter a new message in the “Message” field.
3. Select the alert devices to which you want to send the quick message in the “Device Type/Category”.
4. Select any email addresses to which you’d like the quick message sent from the “Email” list.
5. Click “Send Quick Message.”

3.3 Managing Quick Picks

The quick picks dropdown menu allows a user to select from a number of commonly used messages.

To add a new quick picks:

1. From the home screen, click “Quick Message.”
2. Click “Manage Quick Picks.”
3. Click “Create a New Quick Pick” to add a new quick pick.
4. Enter the message in the “Quick Pick” field.
5. Click “Insert Quick Pick.”

3.4 Viewing the Quick Message Log

The quick message log displays all messages that have been sent, along with details about the status of the quick message.

To access the quick message log:

1. From the home screen, click “Quick Message.”
2. Click “Quick Message Log.”

Chapter 4

Using Reminders

4.1 Overview

Reminders can be used to send a recurring message out to any single alert device or group of alert devices.

Reminders are created and managed in the reminders screen.

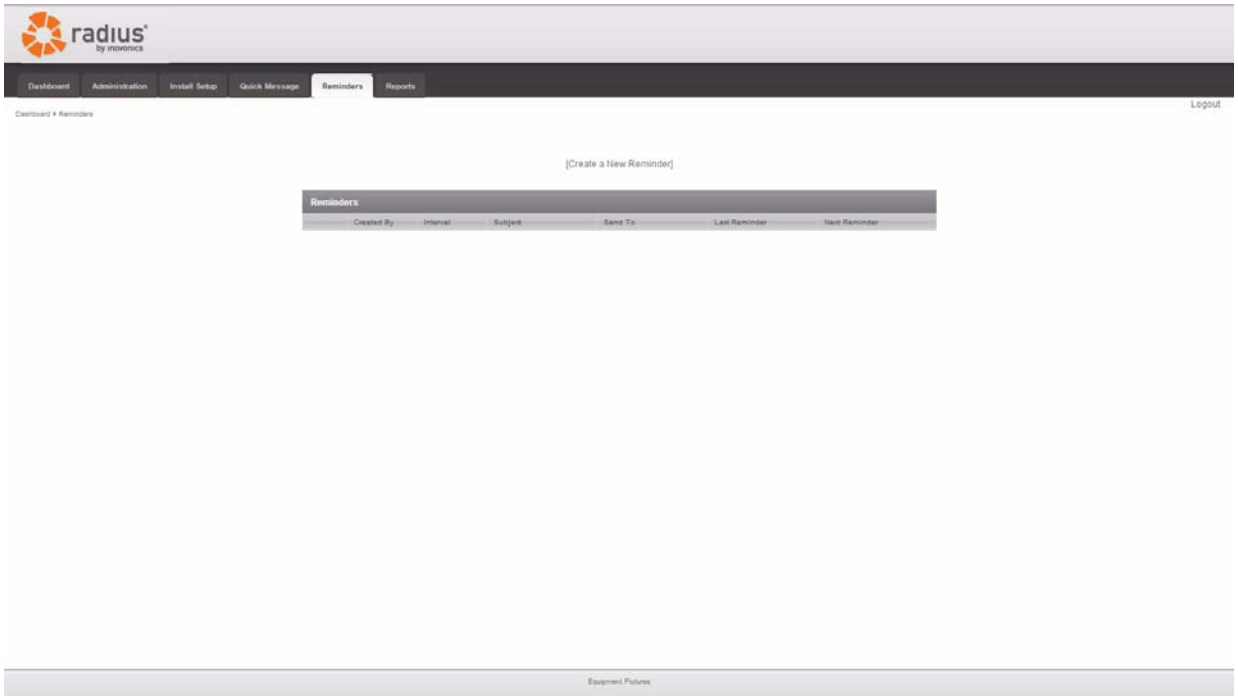

Figure 4-1 Reminder screen

4.2 Sending Reminders

1. From the home screen, click “Reminders.”
2. If you wish to create a new reminder, click “Create a New Reminder”.
3. Enter the subject of the reminder in the “Subject:” field.
4. Choose a saved message from the “Quick Pick” dropdown menu, or enter a new message in the “Message:” field.
5. Choose how often the reminder should be sent out from the “Reminder Interval” dropdown menu.
6. Choose the date to start sending the reminder from the “Start Day” dropdown menus.
7. Choose the time of day the reminder will be sent from the “Reminder Time” dropdown menu.
8. Select the alert devices to which you wish to send the reminder from the “Device Type/Category:” field.
9. Select any email addresses to which you’d like the reminder sent from the “Email” list.
10. Click “Insert.”

Chapter 5

Reports

5.1 Overview

There are seven reports available for the Radius system:

- Alarm History
- Average Alarm Response Time
- Track Mobile Devices
- Mobile Device Tracking Report
- Current Temp/Humidity
- Temp/Humidity History
- Low Battery Report

Not all reports will appear on every system. A Radius system without temperature/humidity funcionality will not include temperature/humidity reports, for instance. Likewise, a Radius system without location functionality will not include mobile device tracking information or zone activity information.

All reports are accessed from the reports screen.

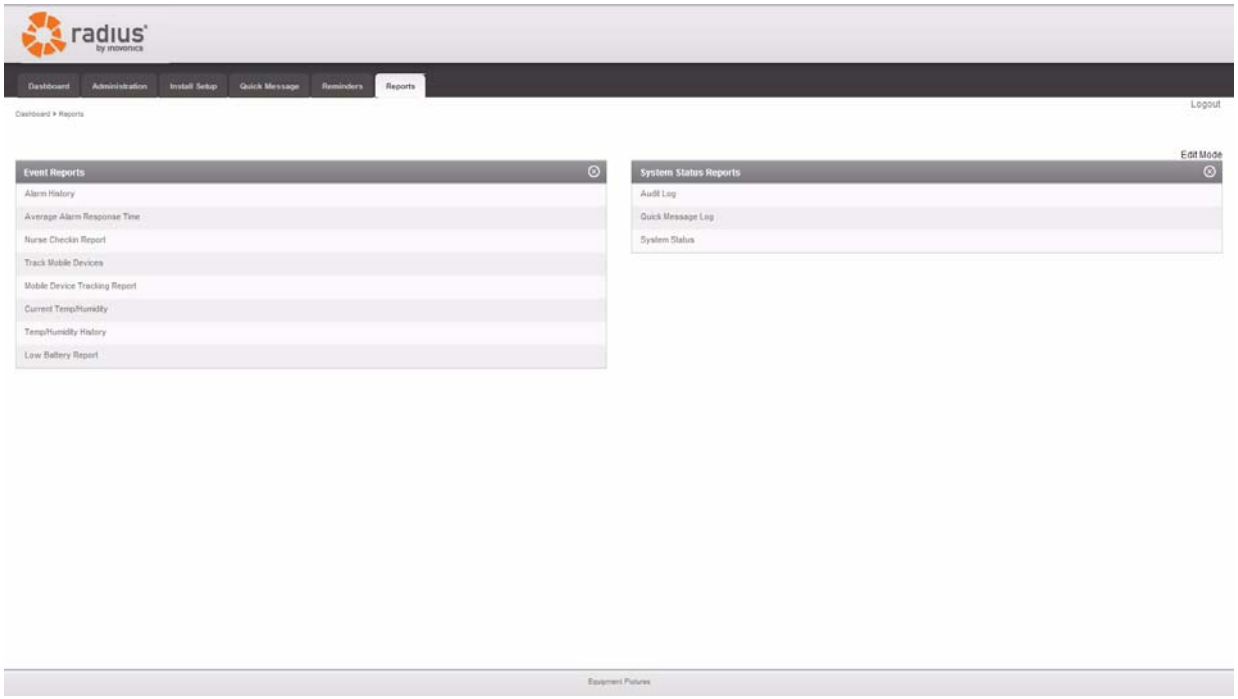

Figure 5-1 Reports screen

5.1.1 Alarm History

The alarm history report displays alarm details for particular devices or groups of devices.

To display an event history report:

1. From the home screen, click “Reports.”
2. Click “Alarm History.”
3. Select options to refine your report. Any field can be left blank to select all.
   - Mode: Select a specific mode to filter report results by mode.
   - Monitored Event Device: Select monitored devices in a category to filter report results by monitored device type.
   - Show ‘Display Only’ Events: Select to see only events that are displayed on the web interface without sending alerts.
   - Minimum Alarm Response Time: Select to see only alarms that were active for greater than this number of minutes.

- Maximum Alarm Response Time: Select to see only alarms that were active for less than this number of minutes.
- Select Report Dates: Select one of the commonly requested report durations or create a custum range to filter results.

4 Click “Display Report.”

5.1.2 Average Alarm Response Time

The average alarm response time report shows the average amount of time alarms are active within the Radius system.

To display an average alarm response time report:

1 From the home screen, click “Reports.”

2 Click “Average Alarm Response Time.”

3 Select options to refine your report. Any field can be left blank to select all.

- Mode: Select a specific mode to filter report results by mode.
- Monitored Event Device: Select monitored devices in a category to filter report results by monitored device type.
- Show ‘Display Only’ Events: Select to see only events that are displayed on the web interface without sending alerts.
- Minimum Alarm Response Time: Select to see only alarms that were active for greater than this number of minutes.
- Maximum Alarm Response Time: Select to see only alarms that were active for less than this number of minutes.
- Select Report Dates: Select one of the commonly requested report durations or create a custum range to filter results.

4 Click “Display Report.”

5.1.3 Track Mobile Devices

The track mobile devices report shows the location of all mobile devices that have been set up using the Inovonics positioning system.

To see tracked mobile devices:

1 From the home screen, click “Reports.”

2 Click “Track Mobile Devices.”

3 The following sortable information will display.

- Last CheckIn: The time and date of the last check in message received by Radius from the device.
- Device: The description and identification number of the device.
- Category: The category of the device.
- Location: The zone where the device was located when the last checkin was received.

5.1.4 Mobile Device Tracking Report

The mobile device tracking report shows the location and/or movement during a specified time period of mobile devices that have been set up using the Inovonics positioning system.

To display a mobile device tracking report:

1. From the home screen, click “Reports”.
2. Click “Mobile Device Tracking Report”.
3. Select options to refine your report. Any field can be left blank to select all.
   - Monitored Event Device: Select monitored devices in a category to filter report results by monitored device type.
   - Select Report Dates: Select one of the commonly requested report durations or create a custum range to filter results.
4. Click “Display Report.”

5.1.5 Current Temp/Humidity

The current temp/humidity report shows sensor information for any temperature/humidity devices in your Radius system.

To display current temperature and/or humidity information:

1. From the home screen, click “Radius”.
2. Click “Current Temp/Humidity”.
3. The following sortable information will display.
   - Last Report: The time and date of the last temperature/humidity message received by Radius.
   - Device: The description and identification number of the device.
   - Category: The category of the device.

- Type: The type of the device.
- Measurement: The temperature or humidity measurement provided by the device.
- Alarm: Whether or not the measurement has violated the alarm criteria.
- Alarm Criteria: The alarm criteria assigned this device.

5.1.6 Temp/Humidity History Report

The temperature/humidity report shows sensor information for temperature/humidity devices during a specified time period.

To display a temperature/humidity report:

1. From the home screen, click “Reports”.
2. Click “Temperature/Humidity Report”.
3. Select options to refine your report. Any field can be left blank to select all.
   - Monitored Event Device: Select monitored devices in a category to filter report results by monitored device type.
   - Select Report Dates: Select one of the commonly requested report durations or create a custum range to filter results.
4. Click “Display Report.”

5.1.7 Low Battery Report

This report shows all Inovonics end devices that are reporting low battery conditions, are missing, have been tampered with, or are dormant.

Note: Low battery, inactive, and tampered end device information will also be emailed to all those who have been set up to receive administration reports as Radius users. For more information about user administration, see “User Administration” on page 36.

Note: The low battery report is run daily. If you need previous reports, please contact Inovonics technical support at 800.782.2709, option two.

- “Device”: The description and identification number of the device.

- Category: The category of the device.
- Last Check In: The time and date of the last check in message received by Radius.
- First Report: The time and date of the first lo battery message received by Radius.

5.1.8 Scheduled Reports

Alarm history, average alarm response time, track mobile devices, mobile device tracking, and temperature/humidity reports can be automatically emailed on a daily, weekly, or monthly basis.

To schedule an event history or average alarm response time report:

1. From the alarm history, average alarm response time, track mobile devices, mobile device tracking report, or temp/humidity history screen, click “Scheduled Reports.”
2. Click “Create a new scheduled Report.”
3. Enter a name for the report in the “Name” field.
4. Select the recipients of the report from the “Email Recipients” menu.
   - Only email addresses that have been set up as alert devices will be displayed in this menu. For information about setting up alert devices, see “Setting Up Alert Devices” on page 18.
5. Choose how often you would like the reports emailed from the “Query Interval” drop-down menu.
6. Choose when you would like the report to begin being emailed from the “Start Date” drop-down menu.
7. Choose when during the start date you would like the report to be pulled from the “Query Time” drop-down menu.
8. Select options to refine your report. Any field can be left blank to select all.
   - Monitored Event Device: Select monitored devices in a category to filter report results by monitored device type.
   - Select Report Dates: Select one of the commonly requested report durations or create a custum range to filter results.
9. Click “Save Report.”